



Public Service
of New Hampshire

August 30, 2006

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The Northeast Utilities System

Mr. Robert R. Scott, Director
Air Resources Division
NH Department of Environmental Services
29 Hazen Drive, PO Box 95
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Public Service Company of New Hampshire
Baseline Testing Plan Pursuant to RSA 125-O: 4

B.R.
Dear Mr. Scott,

In accordance with RSA 125-O:14, Public Service Company of New Hampshire (PSNH) is required to conduct a testing program in order to determine "baseline mercury input" (using fuel analytical data) and "baseline mercury emissions" (using stack test data) and provide its plan to accomplish this required testing. Pursuant to RSA 125-O: 14, PSNH submits the following plan to accomplish the baseline testing.

Baseline mercury input means the total annual mercury input found in the coal used by all of the affected sources, calculated in accordance with RSA 125-O:14, I. "Affected sources" is defined as existing coal-burning power plant units, specifically Merrimack Units 1 and 2 and Schiller Units 4, 5, and 6. Baseline mercury input shall be the sum of the annual input pound averages from each affected source. The annual input pound average (referred to in RSA 125-O:14, I.(a) as "the average pounds of mercury input per year") shall be calculated by multiplying the average mercury content of the fuel by the average annual throughput of coal for the period 2003, 2004, and 2005 for each affected source. The average mercury content of the fuel, expressed in pounds of mercury, shall be determined for each affected source using analytical data generated from the analysis of representative monthly samples of the coals traditionally used, excluding trial or test coal blends, by each affected source. The analysis shall be conducted following appropriate ASTM testing procedures.

Baseline mercury emissions means the total annual mercury emissions from all of PSNH's existing coal-fired power plant units, calculated in accordance with RSA 125-O:14, II. Baseline mercury emissions shall be the sum of the annual emitted pound averages from each affected source. The annual emitted pound averages (referred to in RSA 125-O:14, II, (a) as average pounds of mercury emitted per year) shall be calculated by multiplying the average mercury emission rate by the statistically valid average annual throughput of coal for the period 2003.

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2004, and 2005 for each affected source. The statistically valid mercury emissions rate for each unit, expressed in pounds of mercury emitted per ton of coal, will be determined through the completion of a minimum of 4 stack tests using appropriate testing protocols. For the purposes of the baseline mercury emissions determination, stack tests shall be conducted at Merrimack Unit 1 and Unit 2 and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller units. If mercury emissions improvements are made or are being made during the testing period, the stack tests shall be conducted without any improvements running at the time of the tests:

In order to calculate baseline mercury input and accomplish the testing requirements contained in RSA 125-O:14, PSNH initiated a fuel sampling and analysis program which consists of the analysis of representative monthly samples of the coals traditionally used, using appropriate ASTM testing procedures, for the period August 2006 through July 2007. Appropriate testing procedures are the most current and accurate ASTM methods, which at present include ASTM D6722-01 (2006) Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis and ASTM D3684-01 (2006) Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion /Atomic Absorption Method. Coals traditionally used include eastern bituminous and South American bituminous coals. Upon receipt, the analytical data will be recorded in pounds of mercury. After the close of the twelve month period, PSNH will calculate the average mercury content of the fuel, expressed in pounds of mercury per ton of coal. PSNH will also calculate the annual input pound averages from each affected source by multiplying the average mercury content of the fuel by the annual throughput of coal (in tons) for the period 2003, 2004, and 2005. Lastly, PSNH will calculate the baseline mercury input by summing the annual input pound averages from all affected sources. As required by RSA 125-O:14, III.(a), PSNH will submit a report containing baseline mercury input no later than September 8, 2007.

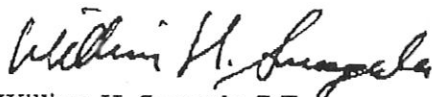
In order to determine baseline mercury emissions and accomplish the testing requirements contained in RSA 125-O: 14, PSNH will conduct a minimum of four stack tests, using appropriate testing protocols, at MK1 and MK2 and either SR4 or SR6. The stack testing will be completed using the sorbent trap method, an appropriate testing procedure proposed by the US Environmental Protection Agency (EPA) for use by electric utility boilers. The sorbent trap method is recommended for mercury testing conducted to quantify total mercury, without a need for speciation data. PSNH will conduct pre-test meetings and submit stack test protocols prior to the start of the testing program at each station. All stack tests will be conducted while burning coals traditionally used, excluding trial or test coal blends, and without mercury improvements running at the time of the tests. In order to satisfy the deadlines contained in RSA 125-O:14, III (b), PSNH anticipates all four tests will be completed on MK1 and MK2 prior to February 1, 2007. The testing schedule will be provided as soon as it becomes available. As required by RSA 125-O:14, III.(b), PSNH will submit the baseline mercury emissions calculations and stack test report no later than December 8, 2007.

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The mercury data collected during the stack tests will be used to determine a statistically valid average mercury emission rate for each affected source, expressed in pounds of mercury emitted per ton of coal combusted. The average pounds of mercury emitted per year from each affected source shall be calculated by multiplying the mercury emission rate (in pounds per ton of coal per year) for each affected source by the average annual throughput of coal (in tons per year) for the period 2003, 2004, and 2005 for each affected source. The sum of the annual emitted pound averages from all affected sources shall equal the baseline mercury emissions.

Please contact me at 634-2851, or Laurel Brown, Senior Environmental Analyst, at 634-2331, should you have any questions or require additional information about PSNH's plan to satisfy the measurement of baseline mercury input and baseline mercury emission requirements contained in RSA 125-O:14.

Sincerely,



William H. Smagula, P.E.
Director - PSNH Generation

